

CLAIMS:

1. A tactile device provided with a number of fluid elements containing an electrically conducting fluid, a fluid level in each element being movable, actuator means for moving the fluid level of a number of selected fluid elements by applying an electric force to said fluid elements, wherein each fluid element is at one end provided with a tactile element that is in contact with the fluid for perception of the fluid level by a user, characterized in that the fluid elements comprise capillary tubes in which the fluid level is movable as a result of electro-capillary pressure.
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2. A tactile device according to claim 1, wherein the actuator means are arranged to vibrate the tactile element for a predetermined period of time.
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3. A tactile device according to claim 1 or 2, wherein the tactile element comprises a diaphragm of flexible material.
4. A tactile device according to claim 3, wherein the diaphragm is provided with at least one contact spot.
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5. A tactile device according to one or more of the preceding claims, wherein one or more capillary tubes are provided at the opposite end with a further diaphragm of flexible material.
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6. A tactile device according to one or more of the preceding claims, wherein the actuator means are arranged for setting the fluid level of a number of selected capillary tubes at a predetermined prestressed level and wherein the device further comprises detector means that are arranged for detecting a change of fluid level in the selected capillary tubes.
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7. A tactile device according to claim 6, wherein the detector means are arranged for detecting a change of electric capacitance in the selected capillary tubes.

8. A tactile device according to one or more of the preceding claims, wherein one or more capillary tubes comprise a first fluid and a second fluid having different electrical conductivities, the fluids being essentially immiscible.

5 9. A tactile device according to claim 8, wherein either the first fluid or the second fluid is electrically conducting and the other fluid, the second or first fluid, respectively, is electrically insulating.

10. 10. A tactile device according to one or more of the preceding claims, wherein the actuator means comprise an electrical power source and a number of electrodes.

11. 11. A tactile device according to claim 6 through 10, wherein the detector means comprise a voltage source and a current measurement device.

15 12. A tactile device according to claim 10 or 11, wherein one or more capillary tubes comprise at least one electrode that is attached to the wall of the capillary tube.